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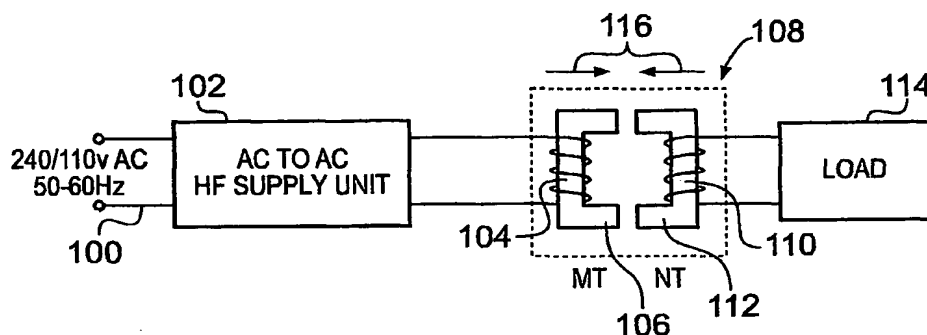
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(54) Title: APPARATUS FOR SUPPLYING ENERGY TO A LOAD AND A RELATED SYSTEM



(57) Abstract: Apparatus for supplying energy to a load, comprises a power supply unit (102) e.g. a switched mode electronic transformer or electronic ballast having an input for receiving current at mains frequency and a means for stepping-up said mains frequency to a higher frequency e.g. 30-50 kHz and an output for delivering energy at the higher frequency. A two part connector (108) has a first core portion (106) that has a primary winding (104) connected to the output of the power supply unit and a mating second core portion (112) that has a secondary winding (110) for delivery of energy to a load (114), the core portions being of a high resistivity material, e.g. a ferrite having a resistivity of at least $10^4 \Omega \text{ cm}$. The apparatus may be used to power e.g. low voltage halogen or other incandescent lighting, fluorescent lighting, or an electric motor, a power supply for a computer, radio, television or like electronic device, a heater or the like.